

[0258] At that time, the CPU 32 outputs an image signal Sv based on the control information to the display unit 29. The display unit 29 displays the key images of the Internet, the calendar, the camera, the calculator, the music, the telephone, the multimedia, the user data, the album, various kinds of the settings, the timer, the television, the Web, the wake-up call or the like, which form the icon images of the application #2, as the operation screen (referred to as FIG. 26B).

[0259] Also, the CPU 32 outputs the instruction data D based on the control information to the air-circulation unit 3A. The air-circulation unit 3A executes the changeover control so as to open the valve body 309 or so as to shut off the valve bodies 304, 322 based on the instruction data D in order to select the flow channel 2i. The blower 3b sends the air to the flow channel 2b selected by the flow channel changeover unit 3a1. The piezoelectric unit 315 constituting the blower 3b adjusts an amount of the air. The piezoelectric unit 315 is controlled by the instruction data D inputted from the CPU 32. This control enables the concave and convex touch feeling of the twenty element bag portions E41 to E60 corresponding to the icon images of the application #2 to be changed.

[0260] Then, the CPU 32 executes the application #2 at step ST29. The application #2 processes the information by operating, for example, the twenty keys K41 to K60 for various kinds of function selection operations corresponding to the icon images of the Internet, the calendar, the camera, the calculator, the music, the telephone, the multimedia, the user data, the album, various kinds of the settings, the timer, the television, the Web, the wake-up call and the like. When the slide operation or the press operation is executed, the respective concave and convex touch feelings are obtained.

[0261] Thereafter, the process shifts to step ST30 where the CPU 32 judges the end of the application #2. If there is no end-instruction of the application #2, the process returns to the step ST29 where the display unit 29 continues the display of the operation panel images relating to the application #2. If there is the end-instruction of the application #2, the process shifts to step ST31 where the CPU 32 transmits the instruction data D to the air-circulation unit 3A so as to control stopping the piezoelectric unit 315. Thereafter, the process shifts to the step ST38.

[0262] It should be noted that if the application execution instruction other than the execution instructions of the applications #1 and #2 is set at the step ST27, the process shifts to step ST32 shown in FIG. 28. In the step ST32, if the application execution instruction is an execution instruction of the application #3, the process shifts to step ST33 where the CPU 32 reads the control information of the application #3. The CPU 32 controls the display unit 29 so as to change over the display based on the control information.

[0263] At that time, the CPU 32 outputs an image signal Sv to the display unit 29 based on the control information. The display unit 29 displays the key array K100 for the key board which forms the icon image of the application #3 as the operation screen (referred to as FIG. 26C). Also, the CPU 32 outputs the instruction data D to the air-circulation unit 3A based on the control information. The air-circulation unit 3A executes the changeover control such that the valve body 322 is opened and the valve bodies 304, 309 are shut off based on the instruction data D in order to select the flow channels 2d to 2h. The blower 3b sends the air to the flow channels 2d to 2h selected by the flow channel changeover unit 3a1. The piezoelectric unit 315 constituting the blower 3b adjusts an amount of the air. The piezoelectric unit 315 is controlled by

the instruction data D inputted from the CPU 32. This control enables the concave and convex touch feeling of the element bag portion array E100 corresponding to the icon images of the application #3 to be changed.

[0264] Then, at step ST34, the CPU 32 executes the application #3. The application #3 processes the information by operating, for example, the key array K100 for the key board. The key array K100 for the key board gives the respective concave and convex touch feelings to the operator's finger when the slide operation or press operation thereof is executed.

[0265] Thereafter, the process shifts to step ST35 where the CPU 32 judges the end of the application #3. If there is no end-instruction of the application #3, the process returns to the step ST34 where the display unit 29 continues the operation panel display relating to the application #3. If there is the end-instruction of the application #3, the process shifts to step ST36 where the CPU 32 transmits the instruction data D to the air-circulation unit 3A so as to control stopping the piezoelectric unit 315. Thereafter, the process shifts to the step ST38.

[0266] At the above-mentioned step ST32, if an application execution instruction other than the execution instructions of the applications #1 to #3 is set, the process shifts to step ST17 where this application is executed. In the processing in this application, for example, a waiting image or the like is displayed on the display unit 29 by changing over the display screen. Also, the air-circulation unit 3A performs the changeover control such that the valve body 304 and the valve bodies 309, 322 are shut off based on the instruction data D in order not to select any of the flow channels 2a, 2d to 2i. The piezoelectric unit 315 stops the driving thereof by the instruction data D inputted from the CPU 32. This control disables any of the seventeen element bag portions E1 to E17, the twenty element bag portions E41 to E60 and the element bag portion array E100 of the applications #1 to #3 to give the concave and convex touch feeling to the operator's finger.

[0267] Thereafter, the process shifts to the step ST38 where the end of the input processing in the mobile phone 710 is judged. For example, the CPU 32 detects the power-OFF information. If the power-OFF information is not detected, the process returns to the step ST21 where the above-mentioned processing is repeated. If the power-OFF information is detected, the input processing in the mobile phone 710 ends.

[0268] In this manner, the mobile phone 710 as the fourth embodiment is provided with the embodiment of the input device 400. The layered sheet unit 140 for presenting sense of touch includes the three layered touch-sensitive variable sheet units 141 to 143 and the blower 3b sends the compressed air to the element bag portion array E100 of the touch-sensitive variable sheet unit 141, the element bag portions E41 to E60 of the touch-sensitive variable sheet unit 142 or the element bag portions E1 to E17 of the touch-sensitive variable sheet unit 143.

[0269] Consequently, in the predetermined positions of the base member 104, the element bag portion array E100 may present the sense of touch for giving the concave and convex feeling with respect to the operator's finger or the like by the protuberant shape depending on the respective swelling of the element bag portion array E100. Also, in the predetermined positions of the base member 105, the element bag portions E41 to E60 may present the sense of touch for giving the concave and convex feeling with respect to the operator's finger or the like by the protuberant shape depending on the